Nevada

Preventing Tooth Decay Through a Water Fluoridation Program

Public Health Problem

Dental decay (cavities) has declined dramatically in the U.S. population because of preventive strategies such as community water fluoridation, the use of fluoride toothpastes and mouthrinses, and the application of dental sealants, plastic coatings placed in the pits and grooves of molar teeth to prevent cavities. Despite these gains, dental decay remains a significant problem for all age groups, particularly for poor people and those of some racial and ethnic groups. In 1992, only 2% of Nevada's population on public water supplies received fluoridated water.

Evidence That Prevention Works

Water fluoridation, increasing the level of natural fluoride in drinking water to a level effective in preventing tooth decay, has been shown to prevent tooth decay in adults and children. In 2001, two major reports reaffirmed the effectiveness of water fluoridation. In one, a work group of fluoride experts convened by CDC concluded that scientific evidence supported the effectiveness of water fluoridation and recommended that it be continued and extended to additional communities. In the other, the U.S. Task Force for Community Preventive Services came to a similar conclusion and also issued a strong recommendation for water fluoridation.

Program Example

Nevada has made significant progress in implementing water fluoridation. With grant assistance from CDC to purchase some of the needed equipment, Clark County, which includes Las Vegas and Henderson and has a population of about one million people, began water fluoridation in 2000. This measure increased the fluoridation coverage in Nevada from about 28,000 to approximately one million residents, or two-thirds of the population on public water. Nevada is also strengthening its capacity to monitor oral diseases, extend water fluoridation, and provide school-based dental sealants through a CDC cooperative agreement.

Implications

Water fluoridation, the most cost-effective way to use fluoride to protect populations from dental decay, reaches 65.8% of the U.S. population on community water supplies, or about 162 million Americans. In 2000, about 100 million people in the United States were not receiving optimally fluoridated water. The average annual cost of water fluoridation ranges from $0.50 per person in communities with populations of 20,000 or more, to $3.17 in communities of less than 5,000 residents. This program demonstrates the importance of increasing access to fluoridated water as an effective means of decreasing tooth decay and its related pain and suffering, costs for treatment, and lost school and work days.

Contact Information

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